

QGIS Application - Feature request #1357
[PATCH] Build overview for Jpeg-in-TIFF file only if GDAL uses libtiff >= 4.0

2008-10-19 08:58 AM - Paolo Cavallini

Status:	Closed	
Priority:	Low	
Assignee:	ersts -	
Category:	Rasters	
Pull Request or Patch supplied:		Resolution: fixed
Easy fix?:	No	Copied to github as #: 11417
Description		
Pyramids cause tiff files to become reddish, and the lower right quadrant is not completed		

History

#1 - 2008-11-01 12:03 PM - ersts -
- Status changed from Open to In Progress

Could you provide a little more background?

- 1) pyramids were built internal or external?
- 2) which resampling method?
- 3) is the tif paletted?
- 4) what OS and version of GDAL are you using?

thanks

#2 - 2008-11-02 02:54 AM - Paolo Cavallini

- 1) External pyramids seem ok. Internal cause a crash, and the resulting tiff is reddish with the missing tile
- 2) average
- 3) GDT_Byte - Eight bit unsigned integer Image Structure Metadata:
COMPRESSION=JPEG
INTERLEAVE=PIXEL
- 4) tested with Debian Lenny, both on 32 and 64 bit, plus 64 bit Fedora; GDAL 1.5.2-3

#3 - 2008-11-02 08:45 PM - ersts -

I was able to reproduce. It seems to be size dependent. Pyramids built ok on an 80x80 image but crashed on 8000x8000.

When it crashes I get

--> tif_jpeg.c:691: JPEGPreDecode: Assertion '@sp->cinfo.comm.is_decompressor' failed.

So it is a GDAL problem. Will have to look through their tickets to see if this is a known problem.

#4 - 2008-11-03 05:19 AM - Paolo Cavallini

Strange however: apparently GDAL does not crash on the same task when called from the command line

#5 - 2008-11-14 11:19 AM - ersts -

I can reproduce the crash from the command line as well.

looks like it is a know problem, that has been closed but not really fixed

<http://trac.osgeo.org/gdal/ticket/2033>

May have to consider not allowing pyramids to be build for JPEG compressed tifs.

#6 - 2008-11-23 02:58 PM - ersts -

- Status changed from In Progress to Closed
- Resolution set to fixed

-internal pyramid building with compress rasters, specifically JPEG compress is no longer enabled.

This can be re evaluated after libtiff 4+ comes out.

#7 - 2009-05-17 07:35 AM - Even Rouault

- Status changed from Closed to Feedback
- Resolution deleted (fixed)

Ticket #2033 was closed because the fix for it went to libtiff 4.0 branch, but libtiff < 4.0 has still the issue.

So I'm attaching a patch that enables to build safely overviews on Jpeg files or Jpeg-in-TIFF file by checking that GDAL uses libtiff >= 4.0. The "official" trick to do that is searching 'BIGTIFF' in the creation options of the GTiff driver.

#8 - 2009-07-27 05:32 PM - ersts -

- Resolution set to fixed
- Status changed from Feedback to Closed

The patch has been applied, commit:1c15572f (SVN r11188).

Thanks rouault.

Files

Pyramid.jpg	175 KB	2008-10-19	Paolo Cavallini
ticket1357_detect_libtiff4.patch	1.33 KB	2009-05-17	Even Rouault